

ABSTRACT

Aim:

To evaluate the safety and efficacy of the Hyperosmotic contact lens(HCL) in patients with corneal edema and to compare the efficacy of the Hyperosmotic contact lens to standard treatment with regular bandage contact lens(BCL).

Study centre:

RIOGOH, Chennai

Study design:

Prospective comparative study

Outcomes Measured:

For 40 patients who met the inclusion criteria, detailed medical and ophthalmic history, best corrected visual acuity (BCVA), slit lamp examination, IOP, CCT will be done at the time of presentation and on 7, 14, 21 days..

Results:

Mean reduction in CCT after treatment with HCL was 94.025 μ m compared to 33 μ m reduction after treatment with BCL. Mean percentage reduction of CCT was 12.29% with HCL compared to 4.39% with BCL ($p < 0.05$). There was no significant change in mean IOP before and after use of either lens. Visual acuity improvement was noted in only 8% patients treated with HCL. However, no improvement in visual acuity was noted in any patients treated with BCL. Pain relief was better with patients treated with HCL.

Conclusion:

Results show that there is a significant decrease in CCT treated with HCL than BCL. Further studies with larger groups are necessary for the long term outcome assessment of these lenses.

Keywords:

hyperosmotic contact lens, corneal edema, bandage contact lens